CITY *of*
EDMONTON
ALBERTA

CITY OF EDMONTON
INDUSTRY-ENERGY-ENTERPRISE

HEALTH
DEPARTMENT
REPORT
1928

CITY OF EDMONTON
ALBERTA

Health Department Report, 1928

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Members of the Local Board of Health

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A. W. Haddow, Esq., City Engineer
S. Main, Secretary

STAFF

Medical Officer of Health	T. H. Whitelaw, B.A., M.B.
Chief Health Officer	S. Main
Health Inspector	R. T. Anderson
Chief Sanitary Inspector	W. R. Graham
Sanitary Inspector (deceased)	J. M. Highet, R.P.C., A.I.S.E.
Sanitary Inspector	G. Howland
Sanitary Inspector	J. H. Blackburn
Sanitary Inspector	A. P. Methuen
Chief Food Inspector	J. H. Burnet, V.S.
Food Inspector	T. E. Lord
Milk Inspector and Chemist	H. C. Graham, B.A.
Dairy Inspector	C. Ellinger
Accountant	Miss B. B. Murray
Stenographer	Mrs. K. Perraton-Crook
Chief Public Health Nurse (resigned)	Miss B. Bean, R.N.
Chief Public Health Nurse	Miss M. Griffiths, R.N.
Public Health Nurse	Miss S. C. Christensen, R.N.

REVENUE AND EXPENDITURE ACCOUNTS

FOR THE YEAR ENDING DECEMBER 31st, 1928

REVENUE

Inspection Fees	$ 374.00
Cemetery Fees	2,301.00
Ambulance Fees	370.10
	$ 3,045.10
Balance Cost of Operation	30,819.45
	$33,864.55

EXPENDITURE

Salaries	$28,149.31
Printing, Postage and Stationery	354.12
Transportation	3,325.71
Telephones	207.40
Miscellaneous	294.19
Uniforms	206.13
Disinfection and Quarantine	106.96
Cow and Dairy Inspection	149.47
Burial of Paupers	138.00
Ambulance	933.26
	$33,864.55

ANNUAL REPORT MEDICAL OFFICER OF HEALTH

Board of Health and City Commissioners.

Gentlemen:

The Annual Report of the City Health Department for the year ending December 31st, 1928, is herewith submitted for your consideration.

The most serious matter affecting public health during the year was the occurrence of an epidemic of Influenza during the last 3 months, which not only caused an increase in the number of deaths but seriously lowered the resistance to disease of many citizens rendering them for some time much more subject to other diseases such as Bronchitis and Pneumonia. For the first 10 months the incidence of communicable disease was comparatively low, while for November and December the sudden increase in such diseases accounted for 50 per cent. of the total for the whole year. The infantile mortality rate and the general death rate were slightly higher than the exceptionally low and favorable rates for 1927, while the birth rate shows a decided increase. The increased prosperity of the community for the last year is indicated by the great increase in the marriage rate which was 19.4 per 1,000 population.

Summary of Statistics of Importance

Area of City (including 1,000 acres of water)	26,520 acres
Population in excess of but estimated at	70,000
Persons per acre of land	2.64
Natural increase of population (excess births over deaths)	1,285
Births excluding stillborn	2,144
Birth rate per 1,000 of population	30.63
Still births	82
Deaths excluding still born and non-residents	609
Death rate per 1,000 of population	8.7
Deaths of non-residents	246
Total deaths including non-residents	855
Deaths of infants under 1 year of age (city cases only)	117
Deaths of infants under 1 year of age (outside city cases)	21
Total deaths of infants under 1 year of age	138
Infantile mortality rate (city cases only) per 1,000 births	54.1
Infantile mortality rate including 21 outside city cases	64.36
Marriages	1,359
Rate of marriages per 1,000 population	19.4

HOSPITAL FOR COMMUNICABLE DISEASES

The number of cases admitted during 1928 was 499, a list of which is given below, the variety of which indicates what a useful function this hospital is fulfilling to the community. Owing to the capacity of the Royal Alexandra being taxed beyond its limits, one ward has been utilized during the year for chronic and incurable cases which are not included in the 499 cases referred to.

Patients Admitted 1928

Scarlet Fever	154
Mastoid after Scarlet Fever	5
German Measles	1
Measles	29
Measles and Pneumonia	9
Mastoid following Measles	1
Mumps	6
Mastoid following Mumps	1
Pneumonia exposed to Mumps	1
Whooping Cough	15
Whooping Cough and Pneumonia	3
Chickenpox	19

Mastoid following Chickenpox	1
Smallpox	12
Exposed to Smallpox	1
Meningitis	4
Tubercular Meningitis	2
Poliomyelitis	14
Polio-encephalitis	1
Actinomycosis	1
Diphtheria	51
Laryngeal Diphtheria	4
Diphtheria Carriers	17
Diphtheria Suspect	7
Septic Throat	1
Septic Laryngitis	1
Vincents Angina	2
Quinsy	1
Tonsilitis	1
Influenza	5
Acute Rheumatism	2
Typhoid	1
Erysipelas	46
Eczema	3
Impetigo	12
Barber's Itch	1
Ringworm	1
Scabies	11
Dermatitis	1
Streptococcic infection	1
Gonorrhoea infection	2
Ulcer of eye	1
Suspects	44
Nursing (babies) with mothers	3
Total	499

Causes of death were as follows:

	Cases Admitted	Deaths
Diphtheria	55	6
Scarlet	154	2
Erysipelas	46	3
Polio Myelitis	14	2
Whooping Cough	18	4
Meningitis	—	2
Tubercular Meningitis	—	2
Impetigo and Cancer	—	1
Impetigo and Premature	—	1
Impetigo and Meningitis	—	1
Measles and complications	—	2
Septic Laryngitis	—	1
Ulcer of Eye	—	1
Chickenpox and Hodgkin's Disease	—	1

The causes of deaths which occurred and the percentages are as follows:

	Cases Admitted	Deaths	Per Cent.
Diphtheria	55	6	11.
Scarlet Fever	154	2	1.3
Erysipelas	46	3	6.5
Poliomyelitis	14	2	14.
Whooping Cough	18	4	22.
Meningitis	—	2	——
Tubercular Meningitis	—	2	——
Cancer with Impetigo	—	1	——
Prematurity with Impetigo	—	1	——
Meningitis with Impetigo	—	1	——
Measles and Complications	—	2	——
Septic Laryngitis	—	1	——
Ulcer of Eye	—	1	——
Chickenpox and Hodgkin's Disease	—	1	——
Total		29	

The percentage of cases hospitalized for the more important diseases occurring in the community were as follows:

	Total Cases	Admitted	Per Cent.
Scarlet Fever	203	154	75
Diphtheria	56	51	91
Smallpox	25	12	48

That a larger percentage of the Smallpox cases were not hospitalized was due to the fact that 13 of them were mild types of the disease which it was possible to isolate and quarantine satisfactorily in their homes as now permitted by Provincial Regulations.

Acknowledgment is due to the Superintendent and staff of the Hospital for their co-operation and assistance given in dealing with communicable disease admitted during the year.

COMMUNICABLE DISEASE REPORTED DURING THE YEAR AND CORRESPONDING FIGURES FOR 1926 AND 1927

	City Cases			Outside Cases			Totals		
	1928	1927	1926	1928	1927	1926	1928	1927	1926
Smallpox	20	50	6	5	5	6	25	55	12
Diphtheria	42	80	72	14	16	6	56	96	78
Scarlet Fever	189	257	362	24	31	24	213	288	386
Poliomyelitis	5	96	—	10	13	—	15	109	—
Chickenpox	985	498	870	6	2	2	991	500	872
Measles	1257	43	2687	9	6	5	1266	49	2692
German Measles	11	13	2428	1	0	0	12	13	2428
Mumps	433	863	1017	4	2	0	437	865	1017
Whooping Cough	504	292	860	19	2	1	523	294	861
Cerebro Spinal Meningitis	5	1	2	0	1	1	5	2	3
Typhoid	3	4	0	16	17	10	19	21	10
Tuberculosis	26	15	17	23	21	45	49	36	62
Erysipelas	33	25	27	16	13	11	49	38	38
Opthalmia Neonatorum	0	1	0	0	0	0	0	1	0
Encephalitis Lethargica	1	0	0	0	1	1	1	1	1
Totals	3514	2238	8348	148	120	112	3662	2259	8460

Minor Infections or Diseases Subject to Modified Quarantine Only

Minor infections continued to be very slightly prevalent up till the last two months of the year when Chickenpox, Measles, Mumps and Whooping Cough became epidemic, coincident with or following the epidemic of mild Influenza which so seriously affected the general health of the community. The total of cases reported of these infections for the last two months of the year was almost half of the total of all diseases for the year.

Smallpox

There were 20 city cases of Smallpox, and 5 from outside the city. Of the city cases 19 occurred in the first 4 months of the year and one in August. None of these 20 cases had ever been vaccinated in earlier years and were not in any degree protected. Owing to the non-potency of the vaccine supplied at the time, three of them who had been exposed contracted Smallpox, because of the delay in getting a successful take. This was reported to the Provincial Laboratory and a fresh supply secured which proved to be satisfactory. Of the 4 outside city cases only one, an adult, had been vaccinated in infancy. The above is the usual experience with this disease indicating the value of vaccination as a protection against infection.

Polio-myelitis

Of this disease which assumed epidemic proportions in 1927, only 5 sporadic cases occurred during the year 1928.

Typhoid Fever

Of this disease there were only 3 cases reported from the city itself during the year, one contracting the disease from drinking raw river water below the outlet of the sewers, and two nurses in one of our hospitals due to contact with patients they were placed in charge of. The obvious inference from this is that the regulation that no nurses should be employed or taken on hospital staffs until protected against Typhoid fever by inoculation should be strictly enforced. In addition to the 3 city cases 16 others were brought to the city hospitals from outside points, as is now the usual experience. The source of infection in these country cases naturally cannot be absolutely determined, but it is apparent that a city resident who uses the carefully safeguarded public water supply is comparatively free from danger of contracting Typhoid compared with the country residents. Three deaths occurred all among the 16 Typhoid cases brought in to the city for treatment.

Scarlet Fever

The total cases of Scarlet Fever during the year were 213, of which 24 were brought in from outside the city for treatment. The actual number of city cases was 189. As compared with 257 for 1927 and 362 for 1926, it shows the gradual decline in the incidence of Scarlet Fever which has been going on for 3 years. The disease has been of a mild type, only 2 deaths occurring among the 189 cases and one death among the 24 outside city cases. The outside city cases were as a whole more serious types of the disease than the city cases and the death rate naturally higher.

Diphtheria

The number of cases of Diphtheria for the year was 42 city cases and 14 from outside the city. The number of city cases shows a reduction of almost 50 per cent. as compared with 1927 when 80 cases were recorded. This, it is reasonable to assume, was due to the immunization of many of our children during the last two years by Toxoid treatment. If the public respond to the efforts made to have this treatment carried out in all our children from 1 to 5 years of age, as well as older children, we may confidently look forward to complete freedom from this dread disease which has caused 6 deaths during the last year, none of which cases had been given the treatment so long advised.

DEATHS DUE TO COMMUNICABLE AND OTHER SPECIAL DISEASES AND PERCENTAGE OF CASES WHERE THE NUMBER CAN BE ASCERTAINED

	City Cases	Deaths	Per Cent.	Outside City Deaths	Outside City Cases
Scarlet Fever	189	1	1.06	1	——
Measles	1257	5	0.4	0	——
Typhoid Fever	3	0	0.	3	——
Diphtheria	~~42~~ 80	5	~~62~~ 11.9	1	——
Erysipelas	33	4	12.	1	——
Whooping Cough	504	7	1.4	0	——
Influenza	——	33	——	11	——
Anterio Polio Myelitis	——	2	——	1	——
Tuberculosis (respiratory)	——	27	——	12	——
Tuberculosis (all other forms)	——	9	——	7	——
Cancer	——	47	——	35	——
Pneumonia	——	18	——	5	——
Broncho Pneumonia	——	15	——	5	——
Syphilis	——	5	——	3	——
Gonococcus Infection	——	1	——	0	——

City Death Rate per 100,000 Population, the City's Population being Estimated at 70,000 for 1928

	Deaths			Rate per 100,000		
	1926	1927	1928	1926	1927	1928
Scarlet Fever	3	2	2	4.6	3	2.8
Typhoid Fever	0	1	0	0	1.43	0
Diphtheria	10	2	5	15	3	7.1
Tuberculosis of Lungs	28	14	27	43	22.5	40
Tuberculosis, all other forms	13	9	9	20	13	12.8
Influenza	33	2	33	55	3	47
Pneumonia	14	18	18	21	27	26
Broncho Pneumonia	14	9	15	21	13	21
Cancer	53	59	47	80	88	67
Polio Myelitis	1	12	2	1.5	18	2.8
Whooping Cough	14	4	7	21	6	10
Measles	19	0	5	31	0	7.1

The above rates show for the first time a break in the gradually increasing rate for cancer, which for 1928 shows a downward trend. Owing to the special prevalence of Influenza in the latter months of the year, the death rate was greatly increased. The death rates for Scarlet Fever and Typhoid continue to be very low, while that for Diphtheria has increased over the 1927 rate, notwithstanding the fact that the number of actual cases had decreased by 50 per cent. This was due to a special virulence among the few cases occurring, none of whom had received the protective inoculation by Toxoid available to all free of cost.

The apparent increase in the Tuberculosis death rate for lung conditions over that for 1927 is probably due to the capacity of the Sanitorium at Bowness being overtaxed leading to the policy of refusing patients who are so far advanced as to be beyond hope of recovery. Such cases therefore are perforce compelled to remain at their homes or in local hospitals where they reside and a large percentage of them do not survive. There is also a tendency for those so afflicted to drift to the larger centres of population like Edmonton where they take up their residence in order to be in close relation to medical advice and assistance they may desire.

Maternal Mortality

	City Cases	Outside City Cases
Puerperal Haemorrhage	1	1
Uncontrollable Vomiting	0	1
Rupture of Uterus	1	0
Puerperal Septicaemia	3	4
Albuminuria and Convulsions	3	1
Following child birth (not defined)	1	0
Total	9	7

	Deaths	Births	Rate per 1,000 Births
1926	9	1857	4.8
1927	13	1934	6.7
1928	16	2144	7.4

The maternal mortality rate for Edmonton is by no means creditable as is shown by the following data for 1928. That 7 deaths of the 16 should have been due to Septicaemia, a condition which should not occur under proper management is very much to be deplored and on which further information is to be obtained as to the factors concerned.

	Puerperal death rate per 1,000 births
Denmark	2.26
Netherlands	2.44
Sweden	2.68
Italy	2.81
Japan	3.28
England and Wales	3.42
New Zealand	5.06
Canada	5.55
Scotland	6.27
United States	6.90
Edmonton	7.4

From the above it is evident that motherhood in our Anglo-Saxon English-speaking countries, except England and Wales, is attended by

greatly increased danger to life, as compared with European and Asiatic communities.

VACCINATIONS AND INOCULATIONS

There were some 120 vaccinations to prevent Smallpox in the office of the Health Department during the year in addition to a considerable number of persons vaccinated at their homes. A large number of vaccine points were supplied to physicians to vaccinate those applying to them for the service. Owing to the subsidence of Smallpox in the early part of the year and to the fact that over 6,000 had been vaccinated the year previously, the number of cases of vaccination rapidly declined as the necessity apparently diminished.

VITAL STATISTICS

The following statistics for the last five years are based on a population of 60,000 to 70,000.

Births

Year	Population	Births	Birth rate per 1,000 population
1924	60,000	1846	30.7
1925	65,000	1936	29.7
1926	65,000	1857	28.57
1927	67,000	1934	28.7
1928	70,000	2144	30.63

The above shows a decided increase in the birth rate for the year, there being 210 more births than in 1927.

Illegitimate Births and Stillbirths

	1928	1927	1926	1925
Births	2144	1934	1855	1934
Illegimitate Births	146	114	119	109
Per Cent. Illegitimate	6.8	5.9	6.4	5.6
Stillbirths	82	66	61	83

Nationality of the 2,144 Infants Born as Regards Male Parentage

Canadian	737	Approximately 34.5%
British Empire (outside Canada)	596	Approximately 27.5%
United States	245	Approximately 12. %
Other Nations	421	Approximately 20. %
Unknown	145	Approximately 6. %

The percentage of British born in our city is 62 per cent. for 1928, while it was 67.3 per cent. in 1927, which indicates a decrease. Comparing this with the United States indicates that we have 74 per cent. from English-speaking countries and the balance or 26 per cent. is made up of 6 per cent. where it is not possible to state the nationality of the father and 20 per cent. from the great variety of European nations chiefly represented in our city, numbering 37. This 20 per cent. is an increase of 3 per cent. over 1927 when it was 17 per cent.

Of the 146 Illegitimate births during 1928, 49 were city cases and 97 were from outside points.

Deaths

Year	Population	Deaths	Death rate per 1,000 population
1924	60,000	500	8.33
1925	65,000	454	7.
1926	65,000	535	8.23
1927	67,000	482	7.2
1928	70,000	609	8.7

The above deaths exclude non-resididents deaths of which there were 246 during 1928. The above rate of 8.7 per 1,000 population is considerably below the average rate of Canada as a whole which is approximately 10 for a number of years past excluding Quebec which was not included in the registration area until recently.

Causes of Deaths for 1928	City	Outside City
Epidemic, Endemic and Infectious Diseases	108	43
General Diseases not included in Class 1	80	50
Diseases of the Nervous System and of the Organs of Special Sense	41	16
Diseases of Circulatory System	95	33
Diseases of Respiratory System	41	11
Diseases of the Digestive System	56	32
Non-Venereal Diseases of the Genito-Urinary System and Annexa	49	25
The Puerperal State	9	7
Diseases of the Skin and of the Cellular Tissue	2	4
Diseases of the Bones and the Organs of Locomotion	2	3
Malformation	16	4
Early Infancy	64	1
Old Age	4	1
External Causes	40	14
Ill-Defined Diseases	2	2
	609	146

Total Deaths—855

Marriages

Year	Marriages	Rate per 1,000 population
1924	920	15.3
1925	977	15
1926	1093	17
1927	1115	18
1928	1359	19.41

The increase in marriages for 1928 of 244 reflects the increased business prosperity of the city.

CHILD WELFARE DIVISION

Infantile Mortality Rates per 1,000 Births

Year	Deaths Under One Year	Deaths All Ages	Per Cent Under One Year	Births	Rate Per 1,000 Births
1924	131	500	26.2	1846	70.9
1925	106	454	23.2	1936	54.8
1926	130	535	24	1857	70
1927	98	482	20.3	1934	50.67
1928	117	609	17.5	2144	54.1

The low infantile mortality rate of 54.1 per 1,000 births is slightly higher than the very low rate for 1927 of 50.67, but is much below the average mortality rate in Canada as a whole, and the average for previous years in Edmonton. If the 21 infant deaths of children brought into the city for treatment who died here are included, the mortality rate is 64.36 the actual number of infants dying in the city being 138.

As regards the monthly returns, the city deaths of infants were distributed somewhat evenly throughout the year, the winter months, however, showing a considerably higher mortality rate than the summer months. There was during the hot summer months a complete absence of any indication that enteritis or summer complaint was the cause of deaths of infants in any greatly increased degree. This was given as the cause of death in 11 cases during the year of the 117 deaths. Of the 11 deaths there occurred in July none, in August 2, in September 2 and October 3, from summer complaint. That a greater number of deaths did not occur due to this complaint in these months is indicative of a greatly improved public milk supply, produced and kept under proper conditions, and of increased knowledge regarding the proper feeding of infants disseminated by our Child Welfare Clinic and Health Nurses.

Causes of the One Hundred and Thirty-eight (138) Infant Deaths

	City	Outside City
Premature Birth	50	2
Gastro Enteritis	11	4
Congenital Malformation of Heart	7	2

Others under this title	6	0
Broncho Pneumonia	5	2
Congenital Debility	4	2
Hydrocephalus	4	0
Injury at Birth	3	0
Whooping Cough	3	0
Influenza	2	0
Rickets	2	0
Disease of the Thymus	2	0
Acute Bronchitis	2	0
Other diseases peculiar to early infancy	2	2
Accidental Mechanical Suffocation	2	0
Measles	1	0
Diphtheria	1	0
Dysentery	1	0
Erysipelas	0	1
Tuberculosis (except Pulmonary)	0	1
Syphilis	1	0
Septicaemia	1	0
Leukaemia	1	0
Haemophilia	1	0
Simple Meningitis	1	1
Diseases of the Ear	1	0
Lobar Pneumonia	1	0
Peritonitis	0	1
Pyloric Stenosis	0	1
Intestinal Obstruction	0	1
Acute Accidental Poisonings	1	0
Accidental Traumatism by Fire Arms	1	0
Ill Defined	0	1
Totals	117	21

Premature birth again proves to be the chief cause of death, there being 62 cases or 36 per cent. This cause of death is apparently on the increase as in 1927 it was only 30 per cent. and in 1926, 25.6 per cent. An analysis of the causes of death indicates that of the 138 infants which died, the following conclusions are justified.

Number born alive incapable of sustaining life, 74 or 54 per cent.
Number born alive capable of sustaining life 64 or 46 per cent.
The ages of these infants at death were:

	City	Outside City
Under 1 day	37	2
Under 1 week	20	1
Under 1 month	9	0
	66	3
Under 1 month	66	3
From 1 to 3 months	18	8
From 3 to 6 months	18	2
From 6 to 9 months	9	6
From 9 to 12 months	6	2
Totals	117	21

From the above figures it is to be noted that 37 or approximately one-third of these infants died in the first day of life, over 50 per cent. in the first month of life and that 74 or 54 per cent. could not, through any health agency, have a reasonable chance to survive even under the best of care. Again it is to be emphasized that only by a greater degree of pre-natal care can this condition be improved. Unfortunately many of these cases are from the country points and cannot be reached by our City Child Welfare Nursing Staff. Investigation is made monthly into all cases to discover what pre-natal care has been given. Of the 68 deaths under 1 month, investigation has revealed that pre-natal care was given in 31 from 3 to 7 months. Much greater service could be given when the Child Welfare Nurses are provided with a car, which has been recommended by the Board

of Health, by which a much greater area could be effectively covered and much more individual attention given to pre-natal cases.

Of the one hundred and thirty-eight (138) infants who died, only 15 had been in attendance at the City Child Welfare Clinic, only 6 of whom were brought regularly for advice.

The causes of death in these 15 infants were: 4 due to infectious conditions, 2 due to accidents, 3 to gastro-enteritis and 6 to pneumonia.

During the year 100 Child Welfare Clinics were held with a total attendance of 4,630, which was 965 more than for the previous year. The average attendance was 46 infants and pre-school children for the year. All infants requiring medical attention are referred to their family physicians.

The medical attendance at the clinic was given by Drs. J. F. Folinsbee, Dr. D. B. Leitch and Dr. Newell, who are entitled to the greatest credit for thus giving their time and services entirely free. In view of the value to the community of such service it seems reasonable that they should be given some compensation as is done in other centres of population similar to Edmonton. Tribute must be paid to the Victorian Order of Nurses for their co-operation with this Clinic work to which they direct many mothers. Through the agency of the clinic many generous gifts of clothing have been sent in for needy families by various charitable organizations during the year.

DEPARTMENT OF GENERAL SANITATION

The policy of giving assistance in suitable cases to install sewer and water services, inaugurated last year by the city, has been productive of satisfactory results in a limited number of cases and if continued on a larger basis would within a few years, assist greatly in eliminating from our residential districts the objectionable outhouses necessarily existing where water and sewer services have not yet been installed in houses built previous to such facilities being available. The problem is one of the most difficult of solution we have, but must be dealt with in a manner which will bring about in the shortest time possible the desired results, i.e. the complete elimination of all unsewered dwellings or shacks from districts where sewer and water mains have been provided. In cases where the shack or dwelling is so small or delapidated as to be entirely unsuitable for plumbing and the owner is financially unable to improve conditions, an exchange of the lot for some other lot outside the sewer and water area should be arranged for and the house removed or dismantled. In all cases where it is established that the owner is financially able to make the necessary improvements including installation of at least a toilet and sink, and he fails to comply with the requirements of the sewer and water bylaw, the house should be declared insanitary by the Board of Health and its occupation by any person whatever forbidden until the necessary installation of plumbing is carried out. The granting of yard hydrant permits should only be to residences situated where no sewer service is available and the permit should automatically be withdrawn or cancleled within a reasonable time after sewer service is extended by the City Administration to the street or lane adjoining the house concerned.

During the year 1928, 16 property owners were given a loan by the city to assist them in installation of plumbing at a cost of $3,961.50, an average cost of $248.00.

The Plumbing Inspector's report indicates that of 524 plumbing permits issued, 285 were for new houses erected during the year where sewer and water services were available. On business premises, old buildings, and additions or alterations to plumbing systems already existing 239 permits were granted.

Of 111 notices issued for the installation of plumbing, 18 were complied with and in 3 additional cases the building or house concerned was removed or dismantled. It is therefore apparent that we are not making the progress in the modernizing of old houses built before the sewer service was laid down and made available as rapidly as is desirable though there is a gradual improvement each year. The great difficulty in the majority of these cases is the very poor financial condition of the occupants which makes it impossible for them to carry out the necessary improvements themselves. In many cases to install plumbing is impossible, as their homes are so flimsy or they have become so delapidated that plumbing fixtures if installed could not be properly protected against frost. The congestion of

population and the difficulty of obtaining housing accommodation in the city at present further accentuates the difficulty of inducing occupants of insanitary and unsuitable living quarters to vacate them for more satisfactory quarters. Many of these occupants of these unsewered and in some cases, insanitary dwellings, are in such poor circumstances as to be unable to live in better quarters or pay higher than the minimum of rent. It would appear that the only possible relief for such conditions is for the city to carry out the suggestions made in the beginning of this report on sanitation. The completion of the new sedimentation basin during the year with the addition of the Dorr Mechanical Clarifier, have added greatly to the efficiency of our water plant, and guarantee a water supply during periods of high water, much superior to what has been the case in past years.

The bacteriological reports received throughout the year indicate that our water supply has been rendered safe by the processes of sedimentation, filtration and chlorination to which it is subjected before delivery to the water mains.

From the report submitted by the Chief Sanitary Inspector the following summary indicates the scope of the work carried out by the Sanitary Inspection Department.

Complaints received and dealt with	679
Complaints received from other departments	14
Complaints unfounded or rectified prior to inspection	83
Complaints referred to other departments	166
Complaints referred to garbage contractors	5
Complaints referred to Local Board of Health	1
Number of licenses applied for (calling for special investigation)	515
Inspections made including 3,275 re-inspections	20,002
Notices issued for abatement of nuisances including 666 written notices	4658
Number of Yard Hydrants applied for of which only 15 were granted	26
Number of Prosecutions	26
Number of Convictions	25
Number dismissed	1

MEDICAL RELIEF

The number of cases of the unfortunate, crippled, incurable and aged requiring medical and other services is rapidly increasing in our city. The natural tendency for such individuals is to drift to the centres of population where after 3 months sojourn they become charges against the City of Edmonton. The policy of the Immigration Authorities and Agencies of bringing into the province a large number of unfit and unemployable immigrants who are utterly unable to support themselves or to become self-supporting and whom later they decline to be responsible for, is putting upon the City Relief Department an intolerable burden which should and must be remedied by making representations to the proper authorities.

The overcrowding of our hospitals by patients who should properly be in a home for the aged poor and the incurable, has, during the year, continued and has demonstrated the absolute need of some early action to provide for such cases in a special building or buildings provided by the city with the province co-operating.

Much assistance has been given the Health Department during the year by the Provincial Out-Door Clinic in diagnosing and treating needy cases among the poor.

BOARD OF HEALTH

Twelve regular meetings were held and three additional special meetings of the Board of Health. The meeting of the Canadian Public Health Association, held in Winnipeg, was attended by the Medical Officer of Health.

AMBULANCE SERVICE

The ambulance for communicable diseases operated by the Health Department during the year, owing to increased cost of repairs, produced a deficit.

	Total Services	No Charge Made	Amt. Fees Collected	Cost of Operation
1927	397	102 cases	$695.50	$698.48
1928	287	41 cases	$370.10	$933.26

The mileage travelled was 3,388 at a cost of 18 cents per mile.

BEECHMOUNT CEMETERY

The amount of revenue collected during the year by the Health Department office staff for burials was $2,301.00, which was transferred to the Engineer's Department which is charged with the maintenance of the cemetery.

The appended reports of the Milk and Dairy Inspectors and the Food Inspector show the work carried on during the year to safeguard the health of our citizens in respect to food and milk supplies. No epidemic disease traceable to the milk supply has occurred and continually better results are being secured through systematic inspection of the farms and education of the producers.

The amount of food supplies condemned during the year including 34 carcasses of beef, pork and mutton and 2½ tons of foodstuffs in smaller portions, is fully shown in the Chief Food Inspector's report.

The Milk Inspector, who is a qualified chemist, has included in his report a statement regarding the work done in connection with the swimming pools of our city, which, with the exception of one, are quite modern and of a very high quality and a credit to our city. As a result the healthful sport of resorting to our pools has become one of the most popular amusements among our citizens, many of whom are learning at the same time the useful art of swimming and life saving.

In concluding this report, it is gratifying to say that the public has during the year shown a greatly increased interest in the matter of reporting the minor infections such as measles, chickenpox, whooping cough, etc., many of which cases are not attended by a physician unless complications arise. As a result our reports of infectious disease can be taken as a fair index of the prevalence of such infections in our community.

Thanks are due to the employees of the Department during the year for efficient service given and to all the various organizations with which the Health Department is associated in connection with its work. Most satisfactory co-operation has been secured with the Medical Departments of the Public and Separate School Boards, Medical Profession generally, the Hospitals, the University Clinic, Salvation Army and with the City Commissioners and other Departments of the City Administration.

All of which is respectfully submitted,

T. H. WHITELAW,
Medical Officer of Health.

FOOD INSPECTOR'S ANNUAL REPORT, 1928

Dr. T. H. Whitelaw,
Medical Officer of Health,
Edmonton, Alberta.

Dear Sir:

I beg to submit the following report on the work of Food Inspection for the year ending December 31st, 1928.

Inspection of foodstuffs and premises have been regularly carried out in restaurants, hotel kitchens, bakeries, meat markets, grocery, fruit and confectionery stores, city markets, and abattoirs under city inspection during the past year.

The following is a summary of the work done during the year by this branch of the Department:

No. of inspections made	11,016

Meat Inspection

Quarters of Beef inspected	16,277
Carcases of Hogs inspected	4,597
Carcases of Mutton inspected	1,927
Carcases of Veal inspected	2,930

Meats Inspected and Condemned

Carcases of Beef condemned	18
Carcases of Hogs condemned	2
Carcases of Mutton condemned	3
Carcases of Veal condemned	9
Carcases of Hogs rejected	1
Carcases of Veal rejected	1
Portions of Beef condemned	229
Portions of Hogs condemned	487
Portions of Mutton condemned	364
Portions of Veal condemned	15

Foodstuffs Condemned

Beef	13,919 lbs.
Pork	7,418
Mutton	1,767
Veal	1,803
Fish	235½
Fowl	127
Fruit	3,369
Vegetables	4,011
Ice Cream (5¾ gallons)	29
Butter	8
Bread (250 loaves)	312
Flour	5,006
Eggs (356 dozen)	534
Candy	1,544
Biscuits	560
Canned Goods	9,332
Sundries	1,093½
	51,068 lbs.

Prosecutions

A grocer was fined five dollars and costs for failing to keep his store premises clean.

A baker was fined fifty dollars and costs for offering for sale short weight bread.

Loaves of bread seized for being short weight—20.

Samples of Foodstuffs Submitted for Analysis

One sample of ice cream complained of. Result—sample met all requirements of the Federal Food and Drugs Act.

Seven chocolate bars (including three complained of). Result—No evidence of any deterioration found in any of the samples which would render them unfit for consumption.

One sample of Bloater Paste. Result—No organisms. No growth in four days.

One sample of bread complained of, supposed to contain tobacco. Result—Proved to be stale dough.

Sample of Glace Cherries. Result—No evidence of decomposition. No traces of Metals. No acidity due to souring.

Two samples of chocolate bars. Result—One sample O.K. The other, unfit for consumption.

Respectfully submitted,

J. H. BURNET, M.R.C.V.S.,
Chief Food Inspector.

ANNUAL REPORT OF MILK INSPECTOR, 1928

Dr. T. H. Whitelaw,
Medical Officer of Health,
Edmonton, Alberta.

Dear Sir:

During the year there were collected nine hundred retail samples of milk, a considerable increase on any previous year. Of these, twenty-eight (28) were spoiled either by the presence of spreaders or by mishap so that no bacteria count was obtained. The results of the other eight hundred and seventy-eight (878) are listed by months as follows:

Months	Special	Under 100,000	100,000 200,000	200,000 300,000	300,000 400,000	400,000 500,000	500,000 1,000,000	Over 1,000,000	Spreaders	Total
January	43	10	9	2	1	2	0	2	0	—
February	48	6	3	1	1	0	3	1	1	—
March	55	9	5	2	0	0	1	1	2	—
April	39	18	7	2	2	0	2	2	0	—
May	42	19	14	3	2	3	0	4	1	—
June	44	10	9	2	3	2	1	1	1	—
July	21	6	3	2	0	0	1	0	1	—
August	49	17	10	2	2	0	1	0	1	—
September	53	7	4	4	1	0	0	1	0	—
October	64	17	8	3	2	1	0	0	1	—
November	59	10	9	2	2	1	0	1	0	—
December	41	7	19	5	0	0	1	0	2	—
Totals	558	136	100	30	16	9	10	13	10	—
Percentage	64.0	15.6	11.5	3.4	1.8	1.0	1.2	1.5	—	

For purposes of record and comparison, all samples of fifty thousand and under have as in previous years been classed as "special." These have this year made up just sixty-four per cent. of the total samples examined, an increase of just one per cent. over the previous year. The figures very closely parallel those of last year throughout with just a slight increase in the proportion in the better classes and a corresponding decrease for the poorer classes.

The average butter fat content of nine hundred (900) samples examined was found to be 3.79%, which is practically the same as the average for last year. The monthly average varied but little, the highest being in September (3.94%) and the lowest in May (3.66%).

Sediment tests were run on practically all these samples with satisfactory results.

In addition to the routine retail samples, a number of special samples were examined, mostly brought in to this office by interested parties. Of eighteen such samples examined bacteriologically one was spoiled by a spreader, fifteen gave counts of fifty thousand and under and two were between fifty and one hundred thousand. The average butter fat of eighteen such samples was 3.57%. There were also a few odd samples of cream run for butter fat.

One hundred and ninety-three inspections of premises were made in connection with applications to sell milk; 133 places were approved for license.

Considerable time was given to collecting of cow permit fees, inspecting of premises and assisting in the testing of the cattle within the city limits. As the city is gradually building up and as more vacant land is being taken up with gardens, the number of private cows will gradually decrease, but the number is still quite large.

General supervision as in previous years was given to the operation of the swimming pools. Test reagents and standards were made up and supplied to each pool so that the chlorination could be exactly controlled and personal tests were frequently made. Samples for bacterial examination

were regularly taken to the total of three hundred and forty-five (345). The results on our Municipal Pools and on one private pool were particularly good. The other pool is run on the old fill and draw method and it has not been found possible to get such good bacterial results. There were only five (5) samples from our Municipal Pools in the whole season which ran over 100 bacteria and only 16 which ran over 10. In no single sample was the presence of colon bacillus indicated. Such results as these have been so regularly obtained that it is only by comparison with the experience elsewhere that we appreciate with what care and faithfulness our Edmonton pools are looked after.

Some time was also given to the operation of the sewage disposal plant and solution supplied for testing purposes. Samples of sewage taken at various points in our sewerage system were also examined for hydrogen sulphide and interesting information obtained.

Yours respectfully,

H. C. GRAHAM,
City Milk Inspector.

ANNUAL REPORT OF DAIRY INSPECTOR, 1928

Dr. T. H. Whitelaw,
Medical Officer of Health,
Edmonton, Alberta.

Dear Sir:

I herewith submit the following report on the inspection of dairies for the year ending December 31st, 1928.

Five hundred and sixteen (516) applications for dairy licenses were received, three hundred and eighty (380) of which come under my report as follows:

	Totals	Granted	Refused	In Abeyance
Local and within 15-mile radius of city	288	283	4	1
Beaumont	9	9	0	0
Calmar	1	1	0	0
Cardiff	1	1	0	0
Deville	1	1	0	0
Dinant (near Camrose)	1	1	0	0
Leduc	21	20	1	0
Millet	34	33	1	0
Morinville	2	2	0	0
Riviere Qui Barre	2	2	0	0
St. Albert	11	9	1	1
Spruce Grove	2	2	0	0
Stony Plain	3	3	0	0
Villeneuve	2	2	0	0
Volmer	1	1	0	0
Wetaskiwin	1	1	0	0
	380	371	7	2

Two (2) licenses were temporarily suspended during the year, one of which was for not having milk house in good condition within a reasonable time and one on account of continued overcrowding of cattle inside a stable.

Number of inspections made—1,467.

There are still a number of the older dairy stables which have no loft and in spite of there being a ventilation system installed, it is almost impossible to keep the interior of the barn dry during the winter months owing to the warm air which is generated by the animals condensing on the walls and under side of the roof. This bad feature of dampness is being eliminated as rapidly as possible in existing barns by lining the roof with lumber in an effort to provide a dead air space in the roof. Excessive moisture in the air is harmful to the animals and also rots the woodwork.

Respectfully submitted,

C. ELLINGER,
Dairy Inspector.